

Feelin' Alright?

Preparation Time:	Easy-to-do	Moderate	Extensive
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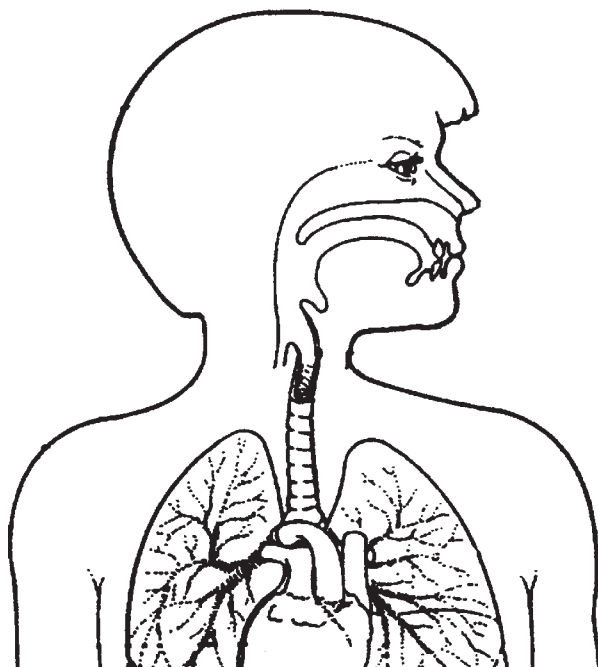
Grade:	6 – 8
Focus:	Health effects of air pollution
Subject:	Science, Health, Geography
Materials:	"Air Pollution and You" student handout, environmental health care professional (optional)
Teaching Time:	One class period, out-of-class research
Vocabulary:	Particulates

Learning Objective

Students will understand of how pollutants affect our health.

Background

Different pollutants affect our health in very specific ways. In fact, physical symptoms often determine the pollutants bothering people.



Prolonged exposure to pollutants can affect people in predictable ways. According to the U.S. Environmental Protection Agency (U.S. EPA), carbon monoxide causes headaches, blurred vision and slow reflexes. Lead causes learning difficulties, alters kidney function and blood chemistry. Sulfur dioxide causes heart and lung problems and also can harm vegetation and metals.

In addition, **particulates** (dust, soot, etc.) can irritate the throat and cause heart and lung problems as well. Nitrogen dioxide may cause increased respiratory illness, such as chest colds and coughing. It may cause increased breathing difficulties in asthmatics. Ozone causes choking and coughing. It also irritates the eyes, throat and nose.

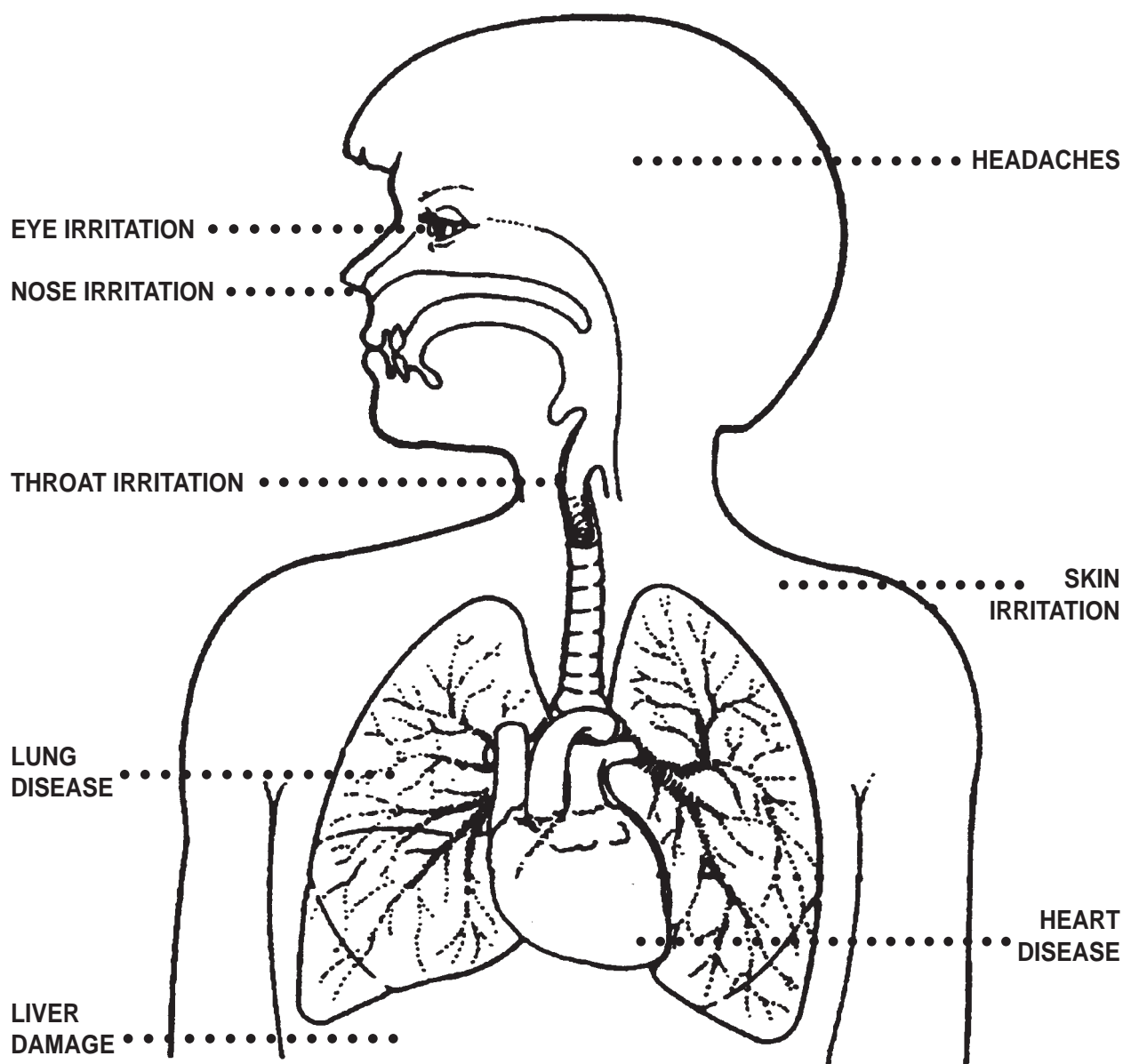
Learning Procedure

1. Share the background material and make a transparency of the "Air Pollution and You" page. Use it to discuss the health effects of these pollutants.
2. Let students pick a pollutant to research. In addition to providing general information, have the students answer these questions: Which areas in the United States and the world have the highest concentrations of your pollutant? Should areas without any immediate sources of your pollutant worry?

Questions for the Class

1. Are some of these air pollutants found indoors? Are some found outdoors?
2. How would weather affect the concentration of air pollution?
3. Which everyday items would you be willing to live without if it would eliminate air pollution? Cars? Manufactured items? Household products?

Air Pollution and You



Airborne Particulates

- irritate your throat
- cause heart and lung problems

Carbon Monoxide

- causes headaches
- slows reflexes
- blurs vision

Ozone

- irritates eyes, nose and throat
- causes choking and coughing

Nitrogen Dioxide

- increases respiratory illness such as colds
- increases breathing difficulties in asthmatics

Sulfur Dioxide

- causes heart and lung problems
- harms vegetation and metals

Lead

- causes learning problems
- alters kidney function
- alters blood chemistry